

1 CLAIMS

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- 3 1. An apparatus comprising:
4 a media including game content; and
5 a data protection portion including a file system alteration checking
6 portion that protects the apparatus from modification of the game content by
7 determining whether the game content has been modified, and if the game
8 content has been modified, then the use of the game content within the
9 apparatus fails.
- 10
- 11 2. The apparatus of claim 1, wherein the media includes a removable
12 media that is removable from the apparatus.
- 13
- 14 3. The apparatus of claim 2, wherein the removable media includes an
15 optical disk.
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- 17 4. The apparatus of claim 2, wherein the removable media includes a
18 digital video disk.
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- 20 5. The apparatus of claim 1, wherein the apparatus includes a game
21 console.
- 22
- 23 6. The apparatus of claim 1, wherein the data protection portion includes
24 a media type checking portion for checking whether the type of the media
25 is as expected for media that has not been copied.

1 7. The apparatus of claim 6, wherein the media type checking portion
2 reduces the possibility of copying the game content from a pressed disk to
3 an end user writable disk.

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5 8. The apparatus of claim 1, wherein the data protection portion checks
6 the entire file to ensure that the media has not been invalidated

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8 9. The apparatus of claim 1, wherein the data protection portion includes
9 a file signature checking portion for checking whether the file signature is
10 as expected for media that has not been modified.

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12 10. The apparatus of claim 9, wherein a signature check is performed on
13 files as they are accessed.

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15 11. The apparatus of claim 1, wherein the data protection portion checks
16 the contents of a file as it is opened.

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18 12. The apparatus of claim 1, wherein the file system alteration checking
19 portion allows sector level validation rather than file level validation.

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21 13. The apparatus of claim 1, wherein the game content is stored in a
22 game console specific format.

1 14. The apparatus of claim 1, wherein the media content includes non-
2 game content.

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4 15. The apparatus of claim 14, wherein the non-game content is stored in
5 a non-game console specific format.

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7 16. A method comprising:

8 attempting to mount a file system, wherein the attempting to
9 mount the file system includes comparing an actual signature of a
10 table of contents from a media with an expected signature of the
11 table of contents; and

12 attempting to read a cluster of sectors from the media,
13 wherein the attempting to read the cluster of sectors includes, for
14 every cluster of sector read, calculating an actual signature, and
15 comparing the actual signature with an expected signature found in
16 the table of contents for every cluster of sectors read.

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18 17. The method of claim 16, wherein the file exists on removable media.

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20 18. The method of game 16, wherein the method is run on a game
21 console.

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23 19. The method of claim 16, wherein the data is stored in a non-game
24 console specific format.

1 20. The method of claim 16, wherein method is a file system alteration
2 check.

3 21. The method of claim 16, that interfaces with a media containing game
4 content.

6 22. The method of claim 16, that interfaces with a media containing non-
7 game content.

9 23. The method of claim 16, wherein the data is stored in a game console
10 specific format.

12 24. A method comprising:

13 obtaining game content from a media; and
14 protecting the game content from modification by determining
15 whether the game content has been modified, and if the game content has
16 been modified, then failing to allow the use of the game content, wherein the
17 protecting the game content includes a file system alteration checking
18 portion.

20 25. A computer readable memory having computer readable instructions
21 that when executed by a processor causes the processor to:

attempt to use a file, wherein the attempting to use the file includes comparing an actual signature of a table of contents from a media with an expected signature of the table of contents; and

attempt to read a cluster of sectors from the media, wherein the attempting to read the cluster of sectors includes, for every cluster of sectors read, calculating an actual signature, and comparing the actual signature with an expected signature found in the table of contents for every cluster of sectors read.

26. A method comprising:

attempting to mount a file system, wherein the attempting to mount the file system includes:

acquiring an expected signature for a table of contents from a media,

comparing an actual signature of the table of contents with the expected signature of the table of contents,

if the expected signature of the table of contents does not match the actual signature of the table of contents, then failing to mount the file system, and

if the expected signature of the table of contents does match the actual signature of the table of contents, then mounting the file system; and

attempting to read a cluster of sector from the media, wherein the attempting to read the cluster of sector includes:

for every cluster of sector read, calculating an actual
signature,
comparing the actual signature with an expected signature
found in the table of contents for every cluster of sector read,
if the actual signature for the cluster of sector does not
match the expected signature for the cluster of sector, then failing
to read the clusters of data from the media, and
if the actual signature for the cluster of sector does match the
expected signature for the cluster of sector, then reading the
clusters of data from the media.